

The Planning Context

Our Facilities Master Plan is a 20-year vision...that will give Goddard 21st century capabilities. It provides an excellent framework for making decisions about future facilities and equipment. Our vision is to make smart investments that will maintain and enhance our reputation as a world-class science and technology center, and give our employees a campus they can be proud of.

—Alphonso V. Diaz, Center Director

Address to workforce, February 2001



1-1 Aerial view of Goddard's campus

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1-2 Contextual plan



1-3 Administration building

Located in Washington DC's Maryland suburbs, the Goddard Space Flight Center (GSFC) brings together America's largest scientific and engineering workforce dedicated to expanding knowledge of the Earth, solar system, and Universe. The National Aeronautics and Space Administration (NASA), and with it the Goddard Space Flight Center, were born out of the stresses and strains of the Cold War over forty years ago.

In October 1957, the success of Sputnik showed the world that the Soviet Union had beaten the United States into Earth orbit. Though it soon launched its own satellites, America felt a deep sense of loss of scientific and technological leadership. Together with new initiatives to promote proficiency in mathematics, science, and technology, Congress and the Eisenhower Administration responded with swift, dramatic changes to the space program.

These changes, recorded in the National Aeronautics and Space Act of 1958, redefined the nation's commitment to space exploration. By transferring leadership from the military to civilians, proponents ensured that outer space would be more than a new theater for the Cold War. NASA would become a celebration of the American spirit: open,



1-4 Integration and testing facilities



1-5 Goddard campus

inquisitive, creative, and essentially peaceful. This breakthrough approach captured the imagination of the nation and, in time, the world. NASA would evolve—and thrive—through continuing efforts to expand the limits of scientific and technological knowledge.

This chapter is a preface to the Master Planning efforts and sets the stage for the remainder of the document. It begins with an overview of the history and current trends of the Center’s mission (Section 1.1) and facilities (Section 1.2). It summarizes the purpose of the Master Plan (Section 1.3), and provides an overview of the process (Section 1.4). It concludes by discussing how the Plan adapts to Goddard’s values and unique organizational culture (Section 1.5).

1.1 Goddard’s Mission

The Center’s work and aspirations are worthy of many volumes, but the paragraphs that follow do little more than introduce key themes. Fortunately, many sources discuss these topics in detail, notably **Dreams, Hopes, Realities: NASA’s Goddard Space Flight Center, The First Forty Years** by Lane E. Wallace (Washington DC, NASA SP-4312,



1-6 Rolling topography

1999). In a time of accelerating change, the Internet is increasingly useful for communicating Goddard’s mission: the Center’s web site (www.gsfc.nasa.gov) provides up-to-date history, current data, news of upcoming developments, and links to relevant resources.

History

The dawn of the space age in the late 1950s created an acute need for the capability to organize and manage projects involving thousands of people and billions of dollars. NASA inherited several research facilities around the country, but the size and nature of their capabilities fell well short of the large-scale efforts the space program would require. As plans for the new Agency progressed during 1958, decision-makers recognized the need for new research centers devoted expressly to space exploration.

This need led NASA to create the Goddard Space Flight Center, its first research center entirely dedicated to the space program. Since then, the Center has grown from a few hundred scientists and engineers trying to solve the basic problems of space flight into a diverse organization of about



1-7 Outdoor areas

7,600 civil servants and contractors pursuing a wide range of scientific research made possible by rockets and satellites. Goddard’s growth and evolution reflects the complexity of the entire space program. Exploring space requires partnerships among government, industry, academia, and international organizations. Balancing among the various (sometimes conflicting) interests of diverse partners is a central challenge. The early hurdle of just getting into space has given way to the continuing effort to go further, more safely and reliably. Along with the entire space program, Goddard has adapted to changing national priorities and scientific and technological realities. A key change is a heightened focus on value: conducting ground-breaking research while managing resources efficiently and effectively.

Today

GSFC is among the largest of NASA’s field installations, and serves as the Agency’s Center of Excellence for scientific research. Recent strategic plans identify Core Competencies, or main “business lines,” on which to focus: Earth science, space science, and science-enabling technologies. From astronomy to planetary geology, from biodiversity to oceanography, researchers use data from spacecraft, bal-

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1-8 New Earth Science facility



1-9 Visitor Center

loons, sounding rockets, and ground-based field campaigns to make new discoveries about the birth and evolution of the universe, the complex interactions between the Sun and the Earth, and the natural and human-induced causes of changes to the Earth's long-term climate.

NASA's Vision and Mission

The Agency's Vision statement is a shared image of the organization's future: ***NASA is an investment in America's future. As explorers, pioneers, and innovators, we boldly expand frontiers in air and space to inspire and serve America and to benefit the quality of life on Earth.***

NASA's mission:

- To advance and communicate scientific knowledge and understanding of the Earth, the solar system, and the universe
- To advance human exploration, use, and development of space
- To research, develop, verify, and transfer advanced aeronautics and space technologies

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1-10 Early buildings

Goddard’s Vision and Mission

One of NASA’s twelve field installations, GSFC is charged with guiding certain aspects of the Agency’s work. The Center’s Vision statement: ***We revolutionize knowledge of the Earth and the universe through scientific discovery from space to enhance life on Earth.***

The mission of the Goddard Space Flight Center is to expand knowledge of the Earth and its environment, the solar system and the universe through observations from space. To assure that our nation maintains leadership in this endeavor, we are committed to excellence in scientific investigation, in the development and operation of space systems and in the advancement of essential technologies.

In pursuit of this challenge, the Center will:

- Conduct a preeminent program of research in the space and Earth science disciplines using measurements from space-complemented by suborbital, ground-based, and laboratory measurements, and by theoretical investigations;
- Develop and operate a broad spectrum of flight missions that are responsive to the needs of the science community

;



1-11 New Earth Observing Systems Data facility

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- Provide and operate spaceflight tracking and data acquisition networks;
- Develop innovative technology and instruments critical to the success of our mission;
- Develop and maintain advanced information systems for the display, analysis, archiving and distribution of space and Earth science data; and
- Develop National Oceanic and Atmospheric Administration (NOAA) satellite systems that provide environmental data for forecasting and research.

1.2 Goddard’s Facilities

History

The Center began in offices and warehouses scattered in and around Washington DC, establishing its current site near the city of Greenbelt by 1961. Goddard now includes multiple sites, including the Wallops Flight Facility on Virginia’s eastern shore, the Goddard Institute of Space Sciences near Columbia University in New York, the Independent Verification and Validation Facility in West Virginia, and smaller research, tracking, and communications sites around the globe.

While each site participates in Goddard’s vision and mission, most people, activities, and facilities are located in Greenbelt. For now, this document focuses entirely on the Greenbelt site. The Center is also preparing a facilities plan to respond to the mission, capabilities, and unique challenges of its Wallops Flight Facility. The Wallops Flight Facility plan is being coordinated with the Greenbelt plan, so when complete, the two will form an integrated facilities plan for GSFC’s largest holdings.

GSFC’s Greenbelt facilities have been managed in response to mission circumstances. Most of the Center’s facilities were built before 1968; brief windows of mission growth spurred most facilities expansion since then. In some cases, building new facilities helped Goddard expand its mission by helping demonstrate its capability to handle new work. All major facilities ever built (and most minor ones) are still in use. As is common for the first decades of an institution, facilities managers generally focused on new construction over facilities renewal. By shifting the most sensitive work into newer buildings, facilities generally kept pace with the Center’s quality needs into the late 1980’s.



1-12 One-of-a-kind laboratories

Current Trends

Since the late 1980’s, Center facilities have grown steadily less well suited to their occupants. Mission and institutional trends each contribute:

- Facilities quality requirements for our work grow ever more stringent
- Designs of older facilities rarely correspond to current occupancies
- After 30-40 years, key facilities systems wear out or become obsolete
- With less new construction, aging facilities predominate
- Facilities renewal has not kept pace with systems degradation

Facilities degradation would progress if current trends continue, resulting in increasing risk to mission occupants. The share of resources devoted to renewal would shift increasingly toward reacting to facilities failures. Failures that would render one or more whole buildings inoperative would grow more likely, forcing the Center to respond with costly contingency plans. Center leadership has concluded that allowing these trends to continue leads to an unworkable future: new

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1-13 Utilities upgrades



1-14 Building renovations

facilities strategies are needed to serve Goddard’s evolving mission.

1.3 A New Master Plan

This Plan must ensure that facilities support the Center’s mission efficiently and effectively. The draft GSFC Facilities Master Plan links directly with NASA and GSFC strategic planning initiatives. Just as strategic plans provide overall direction for Goddard’s future mission, this Plan proposes overall direction for the Center’s future physical environment. A successful master plan helps GSFC to compete for and win challenging work, attract a highly skilled workforce, and provide an up-to-date workplace in which to perform its critical research. A successful plan helps facilities managers enable operational change, steward resources wisely, and recognize the interests of diverse stakeholders.

Enabling operational change

Goddard’s strategic planning has changed considerably in the dozen or more years since it last began a facilities master plan. Though still committed to providing leadership in conducting science from space, the Center has adapted its operations in

response to evolving scientific, technological, and economic realities. To better align with the new strategies, Goddard has reorganized its key resource: its talented workforce. Realigning physical resources is critical to maximize the potential of this human resource. For instance, for Goddard’s many older buildings, planners did not foresee today’s research requirements (precise climate control, vibration-free surfaces, etc.). As a result, a gap has formed between the needs of our work and the capabilities of our facilities.

Stewarding facilities resources

The Plan must help the Center manage facilities in a safe, responsible, efficient, reliable, cost-effective manner: to be good stewards of financial and facilities resources. It must conveniently summarize the past, present, and future of Center’s mission and facilities. Once in place, the Plan is a tool with which mission and facilities managers test new facilities proposals: Do the proposals fit with the plan, and if not, why not? Does the master plan rest on assumptions that are no longer valid? To effectively guide the use of facilities resources (space, services, and funds), it must offer clear, well-coordinated direction, linking current and future facilities initiatives

into a coherent whole. Intended as a “living document”, it must evolve with the Center’s needs:

Renewing the plant. Though well built, the Center’s many older buildings and the systems that support them have declined in condition as they age and as they are adapted to continually changing work. Combined with more stringent research facility requirements, a gap exists between the needs of the mission and the capabilities of existing facilities. Even in decline, some of these facilities have unique capabilities, and constitute a national resource of potential service not only to the Center but also to other researchers.

Being proactive. A master plan helps facilities managers to understand their challenge, and to set forth a plan for success. Rather than reacting to short-term issues and local concerns, it helps them establish a more reliable, long-term strategy for facilities. This allows mission leaders to reduce operational bottlenecks, facilities managers to avoid false starts, and all stakeholders to understand how proposals may affect their interests.

Being cost-competitive. To succeed, GSFC must provide quality services and products at an appropriate expense.

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1-15 Aerial view of todays campus



1-16 Existing architecture

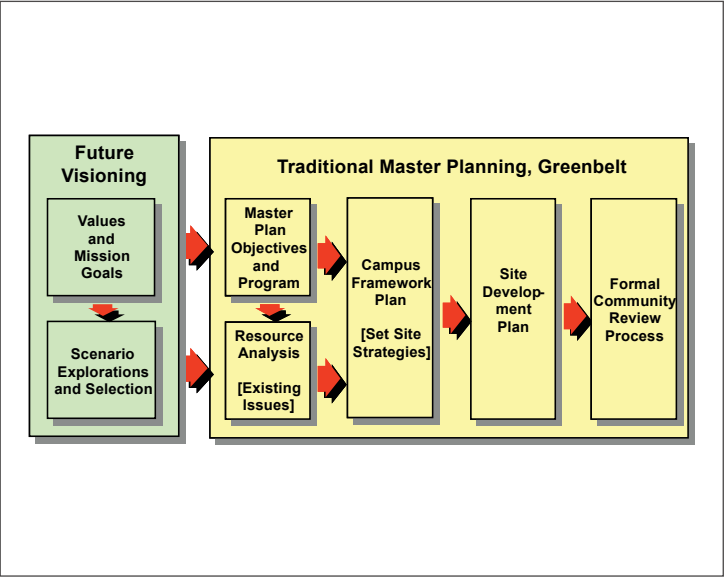
Though facilities are a small part of the budget, facilities managers must ensure that facilities help make the most of all Center resources: people, facilities, funding, services, and technologies. Success will result from making wise investments in facilities that streamline processes, avoid failures, and minimize overhead costs.

Coordinating with stakeholders

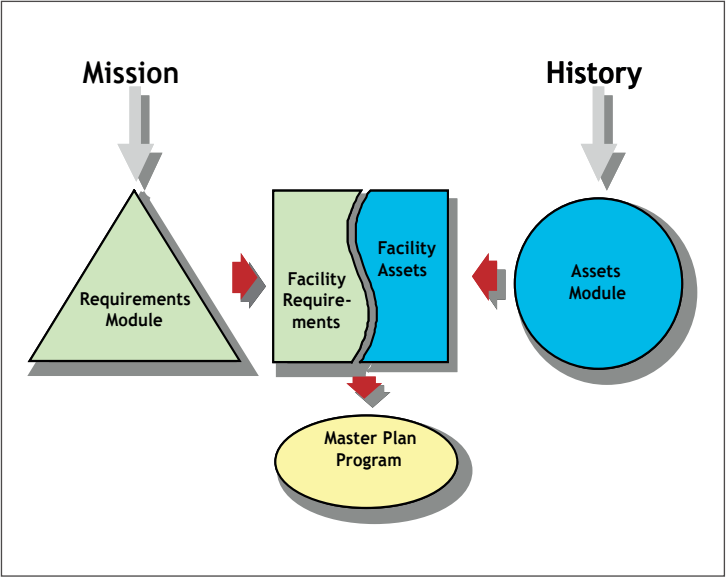
The Plan must also help GSFC coordinate its proposals with all those with interests in the Center’s future. The proposals in a master plan may affect the relationships among “stakeholders” in many respects, and successful coordination requires communication among parties. Beyond those directly responsible for GSFC’s mission and facilities, stakeholders include:

- **the mission customers** including NASA and the broader science community
- **the workforce** including onsite civil service and contractor employees
- **the partners** in the work, including private companies, universities, and international space agencies
- **the community** including state, regional, and local governments, as well as community organizations and individuals affected by Goddard’s actions.

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1-17 Master Planning Process



1-18 Visioning Process

1.4 Plan development

Leadership

This master planning process is being conducted in direct response to GSFC’s Office of the Director, as an integral part of an overall plan to ensure that the Center is efficient and effective in its work. Center leadership created an eighteen member **Steering Committee** to guide early stages of the effort: forward-thinking, highly regarded individuals with a deep understanding of GSFC’s mission and activities, and committed to the Center’s future. A **Focus Group**, comprised of four Steering Committee members, continues to ensure that leadership direction is understood, and that the Plan remains coordinated with evolving mission requirements. The Focus Group participates in progress reviews with the Office of the Director.

Within the guidance of Center leadership, developing this Plan is the responsibility of the Planning Office within GSFC’s Facilities Management Division. Led by the Planning Office, a **Master Planning Team** of planners, architects, and engineers produces and coordinates this Plan and its supporting documents. Including civil servants and contractors, the team

provides technical facilities management expertise to help ensure that the Plan is a success. The team consults experts from across the Center, and external professionals knowledgeable about master planning and the Center’s work.

Approach

At a minimum, a master plan asks how to best use undeveloped property. Goddard’s approach to master planning adds several more complex questions :

- What are the quantities, qualities, and configuration requirements of the Center’s future work?
- What are the quantities, qualities, and configurations of existing facilities?
- How do the existing capabilities compare with projected requirements?
- How can facilities be adapted to best enable mission success?

Goddard is conducting a two-phased process for answering these questions: one operational and another institutional. Future Visioning, the operations phase, explores the facilities implications of GSFC’s changing work, defining goals for how

facilities respond effectively (efficiently, flexibly, reliably, safely). Future Visioning explores the Center’s future mission, and defines key objectives and facilities requirements. Because master plans usually focus on the institutional phase, Goddard refers to it as Traditional Master Planning. Traditional Master Planning begins with the program and objectives, and results in proposals for changing Center buildings, roads, utilities, fences, and land use. The Center’s **Master Planning Process** (Figure 1-17) diagrams the relationships between Future Visioning and Traditional Master Planning.

Future Visioning

Future Visioning is GSFC’s process for translating the organization’s strategic vision into a documented facilities program. Recent Agency and Center strategic planning documents reflect significant changes in the vision for the future. The Center’s recognizes that this vision must be described with considerable care before it can be implemented; Future Visioning describes the vision in terms that allow planners to propose effective facilities responses to changing mission requirements.

Goddard's goals for Future Visioning are to enable a master plan that:

- Links the Center's Strategic Planning to Facilities Planning
- Develops a framework to show relationships between Mission operations, activities and resources, and the Center's facilities
- Provides a planning resource that recognizes "change is certain": proactive vs. reactive

Future Visioning is led by the Steering Committee and facilitated by the Facilities Master Planning Team. Through careful preparation, seminars and briefings, and participatory workshops, Steering Committee participants apply the basic scientific process to facilities. Successive phases focus on validation, exploration, hypothesis, testing, and conclusions .

- **Validation** of current mission and organizational patterns
- **Exploration** of internal expectations and external benchmarks of comparable research organizations
- **Hypotheses**, or multiple scenarios (alternate proposals) about the Center's future
- **Testing** of the scenarios by modeling their projected outcomes

- **Conclusions** resulting from leadership choices about which outcomes best fit the Center's vision

In addition to a **Visioning Process** (Figure 1-18) modeling the relationships between the mission and facilities, key products of Future Visioning include specific Mission Objectives (Section 3.1) and important inputs for the Program of Needs (Section 3.2). Since organizations usually only develop master plans when they are growing, this Plan is unusual in that it describes a vision of a leaner organization (fewer people and less facilities space) within the Center's security perimeter. Instead of planning for organizational growth, the key challenges are ensuring appropriate facilities quality and configuration.

Traditional Master Planning

Once Future Visioning defines Mission Objectives and guides a Program of Needs, Traditional Master Planning is the process of developing, assessing, and selecting facilities proposals consistent with those objectives and needs. The resulting Plan looks at adapting the Center's facilities (buildings, utilities, roads, fences, and land use) over the next twenty years

to enable the Center to succeed at its mission and realize its vision.

Goddard's goal for its Traditional Master Planning process is to provide an overview of the planning analyses from which to identify and forecast future land use and facility development or redevelopment.

Traditional Master Planning is led by GSFC's Facilities Planning office, and carried out by the Master Planning Team. In progress, the Focus Group reviews the resulting progress and products to ensure conformance with the mission and vision. The Master Planning Team and Focus Group conduct periodic progress reviews with Center leadership. The next three chapters of this Plan summarize successive steps of the process:

Goddard Today: An Analysis of Existing Resources (Chapter 2) traces the process of understanding the opportunities and constraints inherent in Goddard's current facilities. It includes study of the existing community setting, natural features, site systems, and cultural resources.

Development of the Campus Framework (Chapter 3) traces the process of developing the Future Visioning results into



1-19 Stormwater management pond



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a Summary Campus Framework, which proposes basic site strategies. Objectives and a Program of Needs are recorded, Land Use Concepts are considered, and the selected scheme is refined as the Summary Campus Framework. Implementing the Future (Chapter 4) traces the process of developing the Summary Campus Framework into a specific facilities proposal called the Site Development Plan. This process begins by recording planning principles, continues with the development and documentation of the Site Development Plan, and proposes how best to implement and sustain the Plan over subsequent years.

The key product resulting from these activities is a Site Development Plan that can be implemented to satisfy the purposes of the Plan (Section 1.3). To be successful, the Plan must not only be clear and compelling, but also recorded to make its logic self-evident when revisited over time.

Environmental and Transportation Planning

Federal installations are numerous in and around Washington DC. Careful planning is essential for them to contribute positively to the quality of life in this populous area. The National Capital Planning Commission (NCPC) helps manage

the cumulative consequences of the actions of area Federal installations by requiring that Facilities Master Plans be accompanied by environmental documentation and Transportation Management Plans. NCPC seeks to ensure that environmental consequences of proposed actions are considered from the very start of the planning process. The Center’s planning process is being conducted according to NCPC procedures: as a result, a draft **GSFC Facilities Master Plan Environmental Assessment** and a draft **Transportation Management Plan** will be submitted for community review along with this draft **GSFC Facilities Master Plan**.

The National Environmental Policy Act (NEPA) requires Federal agencies to assess the environmental consequences of their proposed actions. NEPA requires a systematic, interdisciplinary planning approach, using natural and social sciences in planning and implementing decisions with consequences for the natural and human environment. Prior to major actions, alternatives must be identified and addressed, environmental, economic, and social consequences analyzed, and environmental information made available to the public. Each Federal agency implements NEPA in accordance with its own regulations and management processes. NASA’s NEPA regulations ordinarily exclude planning studies, including facilities master

plans, from Environmental Assessments. However, since the Center is preparing an Environmental Assessment for the NCPC, it is doing so in accordance with NEPA. Analysis is based upon full implementation of all Facility Master Plan proposals to estimate the cumulative effect of the many individual actions. Since it is highly unlikely that every proposal would be implemented, actual impacts are expected to be less than the Environmental Assessment concludes.

Chapter 5 of this document is a draft Transportation Management Plan (TMP), describing GSFC proposals to manage its transportation patterns in a safe, efficient, cost-effective, flexible, and environmentally responsible manner. In regional terms, the TMP helps GSFC reduce its contribution to area traffic congestion, and in so doing helps reduce air pollution to conform to standards defined in the Federal Clean Air Act. The TMP outlines a process of considering and choosing initiatives for GSFC’s transportation system. It is a framework for adapting to changing transportation needs, and specifies GSFC commitments to implement or augment TMP initiatives. It summarizes this process and records the Center’s intent for all stakeholders (external community, workforce, partners, and mission customers) to understand. Like the Environmen-

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1-21 Community outreach areas

tal Assessment, it has been developed in accordance with National Capital Planning Commission guidelines.

Community Review

Good planning involves all stakeholders, including the external community. Goddard has involved its neighbors in the master planning process as early as possible. Participants include regional planning commissions, local and state governments, business leaders, residential and Federal neighbors, and other interested parties. The Center is conducting a variety of meetings, mailings, and discussions with these community interests, designed to offer information about the Plan and to gather information from diverse perspectives. Until this draft Plan is complete, interactions are considered informal; GSFC will also conduct a formal community review. Formal review includes a ninety-day public comment period and presentations before regional planning commissions.

The National Capital Planning Act of 1952 charges the National Capital Planning Commission (NCPC) with overall planning guidance for the orderly development of the National Capital. Through its policies and review of proposals, the Commission seeks to protect and enhance the extraordinary

historical, cultural, and natural resources of this region. The NCPC sets long-range policies and goals, detailed in its **Comprehensive Plan for the National Capital**, to help ensure that Federal activities and facilities are in proper relationship to one another, are compatible with surrounding uses, provide for efficient and effective operations, and are accessible to the public where appropriate. Challenges resulting from area growth and development must be assessed when developing any planning recommendations.

In addition to being part of the Federal presence in and around Washington DC, GSFC has important relationships with the State of Maryland, Prince George’s County, and the City of Greenbelt. To ensure that Goddard understands and considers the perspectives of interests within these jurisdictions, the Center meets with officials of the Maryland-National Capital Parks and Planning Commission (M-NCPPC), which reviews this Plan in coordination with the NCPC. State officials participate in the review through the two commissions, and through the Maryland EA/EIS Clearinghouse, which distributes information to interested State government units. In light of Goddard’s special ties to the neighboring City of Greenbelt, it consults closely with the City government in its planning.

The interests of the two commissions and other reviewers are diverse, and are not cataloged here. Still, the goals set forth in NCPC’s Comprehensive Plan help ensure that the interests of the external community are appropriately considered in the master planning process. The NCPC goals and their implications for Goddard include:

NCPC Goal: Provide for the efficient and effective operation of the Federal establishment in both location and design, while contributing to the general order and beauty of the national capital.

Implications for Goddard: Offer effective guidance for efficient facilities management and operations, and ensure that the facility is compatible with its surroundings.

NCPC Goal: Preserve the important historic features of the national capital region while permitting new development, which is respectful of these features.

Implications for Goddard: In light of Goddard’s historic role in America’s space program, identify and preserve critical historic elements. Given the Center’s interchange with the adjacent Baltimore-Washington Parkway (National Register of Historic Places), coordinate with the National Park Service.

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NCPC Goal: Conserve the natural features and resources of the national capital and enhance cultural and recreational opportunities and the open space of the region.

Implications for Goddard: Protect and promote cultural, recreational, and open space assets. Align recommendations with the Maryland Heritage Biodiversity Program.

NCPC Goal: Enhance the quality of the environment.

Implications for Goddard: Incorporate sustainable design concepts to enhance the campus-like quality of the both the workplace and the natural environment. Ensure that the GSFC facility “lies lightly on the land” to the extent possible.

NCPC Goal: Conserve energy resources.

Implications for Goddard: Use sustainable design concepts to improve campus efficiency and conserve energy.

NCPC Goal: Promote adequate systems for the transportation of residents, employees, visitors, and goods, to, from, and within the national capital region.

Implications for Goddard: Despite limited access to mass transit, improve circulation and recommend transportation management initiatives to help change employee commuting patterns

Throughout the informal and formal community review processes, the Center accepts input (comments, reactions, and proposals) from interested parties. Each proposal is evaluated and, where appropriate, the Center adjusts its proposals in response. After the public comment period is complete, and in coordination with the National Capital Planning Commission and the Maryland-National Capital Planning Commission, the Center submits its revised, **Final GSFC Facilities Master Plan** for formal consideration by the two commissions.

Community involvement in GSFC’s facilities decision-making processes extends beyond reviewing the master plan. Even once a master plan is in place, some implementation projects would have consequences for the external community. These projects would be brought to the National Capital Planning Commission’s project review process, which also includes community review. National Environmental Policy Act documentation would be prepared for facilities projects as required.

1.5 Change processes at Goddard

At GSFC, teams of remarkable people transform impossibilities into realities: statements that start with “It would take a rocket scientist” have special meaning at the Center. In the best traditions of scientific research, individuals have the right—even the duty—to challenge the status quo on a continuing basis, to seek new possibilities, to question any assumption. Creativity and integrity are among Goddard’s central values, the bedrock of its working culture. Deeply ingrained, such values are more constant than even the mission or vision. They are a shared strength, crossing generations and internal organizational divides, so widely shared that they are rarely directly discussed.

These values foster working relationships that are a notable challenge for this plan. Institutional decisions, just like scientific and technological ones, are open to frequent and forceful debate. The same independence that helps extend the limits of science and technology influences nearly every Center decision—even the way facilities are managed. A quick decision process that might prove efficient and effective in another organization would likely fail at Goddard, no matter how great the authority of the decision-maker. While continually seeking

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to improve the efficiency of all its processes, the Center deems the benefits of independence and diversity of approach worthy of any drawbacks.

The heavy focus on process in this Plan is a response to the Center's culture. A compelling plan may be its own best argument in other cultures, and the process of developing it may be secondary if the result is acceptable. In some cultures, once a contentious issue is resolved, it is accepted and supported. In contrast, compelling arguments are essential to making and sustaining any system at Goddard. Challenges are routine for any proposal, guideline, or standard, new or old, when the logic is unspoken or unclear. To maximize success, this Master Plan strives to provide clear, traceable, seamless, logical connections between the Center's vision for its future and how facilities should change to enable that future. Grounding the Plan on a clear and compelling process is critical to carrying it out.

*We revolutionize knowledge of the
Earth and the universe through
scientific discovery from space to
enhance life on Earth.*

- GSFC Vision Statement



1-22 Dr. Robert H. Goddard

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